

DP-308305

APPARATUS FOR FANNING OUT NEAR INFRARED RADIATION IN
AN AUTOMOTIVE OCCUPANT POSITION RESTRAINT SYSTEM

ABSTRACT OF THE DISCLOSURE

An automotive occupant position restraint apparatus senses a position of an occupant of a motor vehicle. The apparatus includes an optical energy source emitting a first beam of optical energy. A first optical arrangement is disposed in a path of the first beam of optical energy. The first optical arrangement expands the first beam of optical energy into a plurality of second beams of optical energy spanning across a first angle. A second optical arrangement is disposed in a path of the second beams of optical energy. The second optical arrangement expands the second beams of optical energy into a plurality of third beams of optical energy spanning across a second angle larger than the first angle. An optical energy receiver receives optical energy from the third beams, wherein the received optical energy has been reflected within a passenger compartment of the motor vehicle.